THE

MASSACHUSETTS TEACHER.

JANUARY, 1866.

Volume XIX. W. P. ATKINSON, Resident Editor. Number 1.

SALUTATORY.

The new Resident Editor of the *Teacher* has but little to say to its readers by way of introduction. In place of making promises, he prefers to be judged hereafter by his work. He does not propose to signalize his accession to office by any startling changes or violent revolution in editorial management: he has no brand-new theories or patent royal roads to bring to his readers' notice. He proposes, with the help of his colleagues, to conduct the magazine on substantially the same plan that has brought it to its present prosperous condition, with only those changes of arrangement as regards the responsibilities of editing which were mentioned in the last number, and which, it is hoped, without depriving the *Teacher* of any good feature it already possesses, will tend to bring more system and unity into its management. Such changes as shall be made in its character will all be made in one direction, and will have for their sole object the promotion of its *practical efficiency*. On many educational topics the editor has his own very decided opinions, which, on all proper occasions, he will hold himself ready to express; but, mindful that the *Teacher* is not his organ, but that of the Association, he does not propose to make it the vehicle for the dissemination of any peculiar set of views, but always to conduct it with a single eye to the interests of the great

body of teachers, by providing as great a variety as possible of good reading, and by keeping its pages open to the full and free discussion of all interesting educational topics.

But he must, at the same time, remind his readers that he cannot, in any true sense, make the *Teacher* their organ without their own hearty co-operation. The best service it can perform is to be a medium of communication between all the many workers in the same great field. It cannot perform that function so long as teachers and other friends of education either have nothing to communicate, or are unwilling to take the trouble required. Writing on such a subject as education, to be of any value, must be the result of practical experience, must be based on careful observation of realities. We do not want mere closet theorizing, nor do we need mere vague generalities as to the utility of education, or any other point about which all are sufficiently agreed. What we do want, and what we must have, if the art of education is ever to make progress, is the careful record of observation and experiment, and the disseminating of their results. A thousand questions of detail stand waiting for such observations. In the editor's view, a thousand errors of theory or practice remain to be corrected by such experiments; and the making and recording of them, the comparing of opinions, and the judging of results, is a work in which every teacher can engage, and a service which he or she owes to fellow-laborers in the same work.

The editor hopes, therefore, that neither indolence nor any false modesty will prevent his fellow-teachers from communicating to him everything they may consider valuable or useful. If they have made a successful experiment in teaching, let them give the result; if they have made a failure, let us have that likewise, for failure is often more instructive than success. If they see an error that needs correction, or an abuse that calls for reformation, let them make the case heard through the pages of the *Teacher*. If they have devised a good method of teaching, or constructed a good lesson not in the books, let them communicate it for the benefit of others. Above all, let us have the result of observations on the minds of children, for nothing is more instructive. The art of teaching depends, more than upon anything else, upon

the teacher's power of understanding the mental condition of his pupils; and in the present defective state of psychology, nothing is more needed than a body of observed facts on which to base a true theory of mental development. For want of this the most unsuitable studies are often given to children, and faculties are addressed, in some of our ordinary methods of teaching, almost before they have come into existence in the child's mind.

The true order of studies — the relative educational value of different studies, — the proportion in which they should enter into the school course, — the right course of study for each kind of school, and the relations of different grades of schools to each other,—the many questions relating to methods of discipline, to the length of school hours, to physical exercise, to methods of teaching; — a crowd of such subjects will occur to every mind, on which information needs to be gathered and opinions need to be harmonized; while in the details of every separate study there is always help to be given by the best informed and ablest instructors. But it is not only from professional teachers that the editor hopes to receive assistance. Every parent is or should be, *ex officio*, a teacher, and the subject is one that commends itself to all. The editor will be glad to hope that he may receive assistance such as will make the magazine valuable and useful to parents and to the general reader as well as to the professional teacher.

It is with unfeigned diffidence that he undertakes the task. It is one that might well employ all the time and talents of a far abler conductor, while he can only give such labor as his other avocations will allow. Whatever a deep interest in the cause, not a little experience in teaching, and a good deal of study of the subject, can contribute, he will cheerfully give; but he would not have undertaken the task unless he had relied on the coöperation, not only of the friends who have pledged themselves to aid him, but of *all* his friends and readers.

CAMBRIDGE, Dec. 15, 1865.

THE HALF-TIME SYSTEM OF SCHOOL INSTRUCTION.

[Some of our readers will recognize in the following article a portion of a paper read at the meeting of the State Teachers' Association recently held in Boston. It is an account of a very interesting educational experiment, made in another country, and under conditions in many respects quite different from those under which such questions present themselves to us. We offer it to our readers in the hope that it will elicit discussion upon the question how far the same evils exist in this country, and how far, and in what ways, the principles enunciated are capable of a practical application among us.]

If I were to say to you that I think that teachers as a body are overworked, that they are too much confined within-doors, that there is too great a strain upon their nervous system, too much of that wear and tear of mind which is of all things the most exhausting, I suppose I should find but few practical teachers here present to gainsay me. If I were then to express the opinion that a portion of this confinement, of this nervous exhaustion, this wear and tear from routine work is useless, and leads to very small results, I think I should find many here to agree with me. And if I should still further venture the assertion as to the cause of the uselessness of much of our labor, that, if it exhausts the adult teacher, it is still more exhausting and injurious to the immature pupil, at an age when his strongest craving is for change and activity, his most pressing want is physical, not mental development, I think I should again meet a general assent to my proposition from practical teachers, and it would be agreed that the youthful pupils' power to receive was very far below the teachers' power to impart intellectual instruction within given limits of time.

If, then, I were, as a logical consequence of these positions, to proceed to advocate, first, a material shortening of school hours, so far as regards intellectual labor; and secondly, and to make up for it, a material increase in the liveliness, directness, and vigor of our teaching; I should find, I think, many who would sympathize with such a view. If next I should propose to fill up the time so

gained with vigorous physical exercises, or, wherever practicable, with active industrial occupations; if, for instance, I should suggest that the future farmer or the future mechanic should begin even in childhood to alternate between school instruction and an apprenticeship to the craft to which he intended to devote himself,—so many hours per day to study and so many to actual work, or one day to study and the other to work, alternately,—some might think that a good plan. If I were to say that the girls of the poorer classes, especially in our cities, by devoting themselves entirely in our schools to intellectual pursuits, some of them of not the most useful kind, very often get their heads filled with false notions, get discontented with their position without learning the only true and right way to better it, and that the path is thus opened to temptation to go terribly wrong through the very influence which of all others should keep them right, I should make a statement which I know could be sustained by evidence, and which would doubtless be corroborated by the experience of some here present. If, now, I were to propose for these girls an alternation between study and the learning of such common household duties as they will have to perform in after life, if such a scheme were possible, it would appear, I think, to many, to offer a promise of rendering them happier, safer, more contented with their lot, and would perhaps do something to solve this domestic help question, which is wearing the lives out of all our housekeepers, do something to enable the future wives of mechanics and laboring men to keep their husbands from the grog shop, and be withal an education which many of their sisters, more fortunate in a worldly point of view, might well find occasion to envy.

But it would immediately be objected by some adherent of good old ways, that all these propositions on my part are mere theory. Children, they will say, after all you can do, don't learn enough; and here comes a proposal to diminish the little they do learn. The teacher, to be sure, is worn out, — but then we are all born to labor and trouble; and if they don't like the business, they can leave it. It's all of a piece, they will probably say, with that pestilent radicalism that's for abolishing the good old Puritan custom of three Sunday services; that pretends that one *good* sermon

is all it can digest, and, so it be really good, all a minister ought to write; and that Sunday was made for something beside long sermons; and even wants to have the City Library, as well as the oyster shops, open on that day. It is a part of the radicalism of the day, "and ought, sir," — you have all seen the good old-fashioned conservative express his opinion, — "it ought, sir, to be *entirely discountenanced.*" And forthwith he goes and asks the master to give his John longer lessons; "and give it to him well, sir, if he don't learn 'em: that's what I got when I was a boy"; silently implying that he is the undoubted standard of perfection.

Well; I have to acknowledge that, so far as I know in this country, the view I have been taking of school labor is still mere theory; but what if I could confront our respectable conservative with the results of a European experiment so thorough, so long continued, so carefully observed, that even he would have to yield, if indeed there is any such thing as yielding in a thorough-paced conservative. Of such an experiment, I here propose to give an account.

It may be known to you that the question how to reconcile the claims of education and the claims of labor, in the case of the vast body of the children of English factory operatives, has long perplexed the minds of English philanthropists. So bitter is the struggle for very existence with large classes of these operatives — it is sad to have to record it of a civilized nation — that it is often a question with the parents of the laboring population between using the labor of their children to help support the family, or the alternative of destitution and starvation without it Yet the state cannot suffer these children to grow up wholly ignorant and benighted heathen. The benevolent Raikes tried to meet the difficulty by the establishment of Sunday-schools, with some, but very insufficient good results. The old Factory Acts contained provisions for the education of the factory children, but it was easy to evade them where it was for the interest both of employer and employed to do so. At length that enlightened philanthropist, Mr. Edwin Chadwick, whose name has been so long and so honorably identified with the English Poor-Law Board, and with Sanitary Reformation, proposed that a compromise should be effected by

devoting strictly a certain small part of each day, say two hours, to learning, and the remainder to work; or that, if more convenient, as it would be in some occupations, two days, or alternate days, as the case might be, should be devoted to study, and the others to manual labor. It was of course naturally expected that this arrangement would prove to be in the nature of a compromise; that something would have to be deducted from the results of labor on account of education, and something from the results of education on account of labor — that the children would not be so well taught as those who went to school all the week, nor their industrial training be so perfect as that of those who worked without intermission.

The experiment has been tried on a very large scale, through an extended period of time, and in a great variety of labors — in the great cotton-mills, like those of Mr. Akroyd, who employs operatives by the thousand; on the great farms of Mr. Paget, M. P., and Lord Hatherton, and in the pauper schools of the Poor-Law Unions; and with this extraordinary and most unexpected result, that the children who are at school only half the time, in intellectual attainments *surpass* the children who are at school all the time, while the children who are at work only half the time grow up into far more valuable and highly paid operatives than the children who are at work all the time. Thus on both sides the old Greek's paradox is illustrated that the half is sometimes more than the whole.

I say it is an extraordinary and paradoxical result; and at first sight it appears so. But when we examine it closely, we shall find nothing extraordinary about it except the blindness that can advocate any other system. For it is successful because it follows nature's teachings, while the other plan is too often a failure because it violates the plainest of nature's laws. In the Transactions of that learned body, the British Association for the Advancement of Science, in the volume for 1860, there is a paper in the statistical department, by Mr. Chadwick, discussing the subject from a physiological and psychological point of view, and containing a very interesting letter from the most eminent of living comparative anatomists, Prof. Owen. As the volume is not

very accessible, I propose to give here the most important portions of Mr. Chadwick's paper.

Mr. Chadwick entitles his communication a paper "On the Physiological as well as Psychological Limits to Mental Labor," and begins as follows: "The business of education still requires for its successful prosecution scientific observation and the study of the subject to be operated on — the human mind. Even to empirical observation it should have suggested itself that the mind has conditions of growth which are required to be carefully noted, to adapt the amount of instruction intended to be given to the power of receiving it. It is a psychological law that the capacity of attention grows with the body, and that at all the stages of bodily growth the capacity is increased by the skilful teacher's cultivation. Very young children can only receive lessons of one or two minutes' length. With increasing growth and cultivation their capacity of attention is increased to five minutes, then to ten; and at from five to seven years of age, to fifteen minutes. With growth and cultivation, by the tenth year a bright voluntary attention may be got to a lesson of twenty minutes, and at twelve years of age, to twenty-five minutes; and from thence to fifteen years of age, about half an hour; that is to say, of lessons requiring mental effort, as arithmetic, not carried beyond the point at which the mind is fatigued, with the average of children, and with good teaching. By very skilful teachers, and with very interesting lessons, the attention may be sustained for longer periods; but it is declared by observers, that prolonged attention beyond average limits is generally at the expense of succeeding lessons.

"The preponderant testimony which I have received in the course of some inquiries into educational subjects is, that with children, at about the average age of ten or eleven, or a little more, the capacity of bright, voluntary attention — which is the only profitable attention — is exhausted by four varied lessons on subjects and exercises requiring mental effort of half an hour each, in the forenoon, even with intervals of relief. After the mid-day meal, the capacity of voluntary attention is generally reduced by one-half, and not more than two half-hour lessons, requiring voluntary effort, can be given with profit.

"The capacity of attention is found to be greater in cold weather than in hot, in winter than in summer.

"I also collect that the capacity of voluntary attention varies with bodily strength and weakness. It is reported to me, that schoolboys, of nearly the same age and conditions, in the same school-rooms and under the same tuition, being weighed and divided into two classes, the light and the heavy, the attainments, as denoted by the number of marks obtained, was found to be the greatest with the heaviest; that is to say, those of the greatest health and bodily strength. These were chiefly of town-born children of common habits. The robust children of rural districts, or less cultivated habits of attention, are found to be slower in receiving ideas; but with cultivation, they are brought up to equal capacity of attention, and to greater retentiveness of the matter taught, than the common classes of town-born children.

"I collect that the good ventilation, lighting, and warming of a school-room will augment the capacity of attention of the pupils by at least one-fifth, as compared with that of children taught in school-rooms of the common construction.

"There are differences in the capacity of attention in different races, or in the habits of attention created previously to the school period by parents of different races. The teacher of a large school in Lancashire, who had acted as a school teacher in the southern counties, rated the capacity of attention of the native Lancashire children as five to four, as compared with those in Norfolk. In other instances the differences are wider.

"Experienced teachers have testified to me that they can and do exhaust the capacity of attention to lessons requiring mental effort of the great average of children attending the primary schools of England in less than three hours of daily book instruction; viz.: two hours in the morning and one hour after the mid-day meal.

"Infants are kept in school, and the teacher is occupied in amusing and instructing them for five or six hours, but the duration of the mental effort in the aggregate bears only a small proportion to the whole time during which they are kept together. Even the smaller amount of mental effort in infant schools is, however,

subject to dangerous excess. I am assured by a teacher in the first infant school established in Scotland that he did not know a preëminently sharp child who had in after life been mentally distinguished.

"In common schools on the small scale, the children will frequently be not more than one half the time under actual tuition; and in schools deemed good, often one third of their time is wasted in changes of lessons, and operations which do not exercise, but rather impair the receptive faculty.

"It may be stated, generally, that the psychological limit of the capacity of attention, and of profitable mental labor, is about one-half the common school-time of children, and that, beyond this limit, instruction is profitless."

This is a startling statement, that we are spending full half our school-time in wearing ourselves out to worse than no purpose. But Mr. Chadwick goes on to corroborate it by further evidence. "This I establish," he says, "in this way. Under the Factories Act, whilst much of the instruction is of an inferior character and effect, from the frustration of the provision of the original bill, there are now numerous voluntary schools in which the instruction is efficient. The limit of the time of instruction required by the statute in these half-time schools for factory children is three hours of daily school teaching; the common average being six in summer, and five in winter. There are, also, pauper district industrial schools, where the same hours (three daily, or eighteen in the week), or the half-time instruction are prescribed; which regulation is in some instances carried out on alternate days of school-teaching, and alternate days of industrial occupation. Throughout the country there are now mixed schools, where the girls are employed a part of the day in needle-work, and part of the day in book instruction. Now, I have received the testimony of school inspectors and school teachers, that the girls fully equal in book attainments the boys, who are occupied during the whole day in book instruction. The preponderant testimony is, that, in the same schools where the half-time factory pupils are instructed with the full-time day scholars, the book attainments of the half-time scholars are fully equal to those of the full-time scholars; that is,

the three hours are as productive as the six hours' mental labor daily. The like results are obtained in the district pauper schools. In one large establishment, containing about six hundred children, one-half girls, and one-half boys, the means of industrial occupation were gained for the girls before any were obtained for the boys. The girls were, therefore, put upon half-time tuition; that is to say, their time of book instruction was reduced from thirty-six hours to eighteen hours per week, given on the three alternate days of their industrial occupation; the boys remaining at full school time of thirty-six hours per week, — the teaching being the same, and by the same teachers, with the same school attendance in weeks and years in both cases. On the periodical examination of the school, surprise was expressed by the inspectors at finding how much *more* alert, mentally, the girls were than the boys, and *in advance* in book attainments. Subsequently, industrial occupation was found for the boys, when their time of book instruction was reduced from thirty-six hours to eighteen; and after a whil the boys were proved, upon examination, to have regained their previous relative position, which was in advance of the girls. The chief circumstances to effect this result as respects the boys, were, the introduction of active bodily exercises, the naval and military drill, and the reduction of the duration of school-teaching to within what appear to me to be the psychological limits of the capacity of voluntary attention.

"When book instruction is given under circumstances combining bodily with mental exercises, not only are the book attainments of the half-time scholars proved to be more than equal to those of the full time scholars, but their aptitudes for applying them are superior, and they are preferred by employers for their superior alertness and efficiency.

"In the common course of book instruction, and in the average of small but well-managed long-time schools, children after leaving an infant school are occupied, on an average, *six* years in learning to read, write, and spell fairly, and in acquiring proficiency in arithmetic up to decimal fractions. In the large half-time schools, with a subdivision of educational labor, the same elementary branches of instruction are taught better in *three* years, and at

about one-half the annual expense for superior educational power.

The general results stated, I have collected from the experience collected during a period of from twelve to fifteen years, of schools comprising altogether between 10,000 and 12,000 pupils. From such experience it appears that the general average school time is in excess full double of the psychological limits of the capacity of the average of children for lessons requiring mental effort."

One would think this was testimony enough; but Mr. Chadwick, not satisfied with the practical evidence thus afforded by his wide experience, was anxious that it should be corroborated by scientific testimony; and he accordingly addressed a letter to that eminent anatomist, Prof. Owen, asking his opinion on the subject. These letters we propose to give in our next number. ED.

SHALL WE HAVE A NATIONAL BUREAU OF EDUCATION?

[We lay before our readers the following communication from a gentleman, who, though giving for his signature his earliest occupation, has since filled much higher offices in the Commonwealth, and whose name, if we were at liberty to give it, would add much weight to his opinion.]

MR. EDITOR: I was present at the recent meeting of the Massachusetts Teachers' Association, when a resolution was adopted appointing a committee to memorialize the Congress of the United States, in favor of organizing a National Bureau of Education. I listened for some reason for such a measure, but as it passed without discussion, I was left to my own reflections upon the subject in forming an opinion of its wisdom or expediency. I had indeed been favored with an earnest appeal in favor of such a scheme, which the "Loyal Publication Society" had issued. And I had there read what had been done in the establishment of national systems of education by Prussia, Holland, France, and other governments in Europe, and the argument which was drawn from their experience in favor of the plan proposed in this resolu-

tion. I felt, moreover, the respect that was due to the opinions of such a body of teachers as were before me, and reflected upon the influence which a judgment, thus expressed, was likely to have upon the public mind, and I resolved to give the subject the attention which its importance deserved. And now, sir, that I am unable to coincide in the opinion which the Association has thus promulgated, will it be aside from the purposes of your journal to give place to a few suggestions, why the teachers of Massachusetts have no occasion to ask for a National Bureau of Education?

If such a Bureau is to be established, I suppose it is with a view to some action. We do not want any more *sinecure* berths for old politicians. What that action is to be, we are not apprised, unless it is proposed to clothe such a Bureau with political power, to dictate what shall be the system of schools in the several States, the qualification of teachers, the school books to be used, and the topics taught. Now to do this would not only require legislation on the part of Congress, — and any one can judge what sort of legislation such a body, gathered from every part of the United States, would be likely to adopt, — but it would require the interference by the National Government, in the domestic affairs of the several States, which, to say the least, would be of most doubtful expediency, not to add of constitutional right. Free schools are not to be sustained without a constant, ever-present and ever-active system of agencies, which reach not only communities, but every individual of whom they are composed. There is work for the assessor and the tax gatherer. Moneys are not only to be raised, but to be disbursed and accounted for, teachers are to be hired, school-houses to be provided, text books and apparatus furnished, and the condition of the schools to be watched over. Is it proposed that Congress shall provide for, or regulate these? Is any friend of popular education willing to confide its interests to such a keeping? If it is not intended to act upon schools through measures of detail, like those above suggested, what is the proposed scheme to accomplish? Is it the influence of the national government, to be exerted through a bureau, that is wanted? And are we to borrow hints in this respect from what is done in France? Are the teachers or people

of Massachusetts content to have the government of the nation, or even of the State, exercise the functions which the sovereign power of France assumes, over the local interests and domestic police of every town, village and private household? The impression here is very general, that we are governed too much already; that administration interferes, in too many instances, to regulate or restrain what should be left to the intelligent and untrammelled action of the people. Many believe that the Maine Law has done anything but advance the cause of temperance, by committing to a few constables and police justices the care and oversight of what belongs to the people of the several communities in which vice seeks to perpetuate itself. In France the affairs of the people are entrusted to the surveillance of a single sovereign. In our own country the people exercise this power, either through their agents, who make and administer the laws, or by a power quite as effectual and far more general — the force and influence of public opinion. Would it be wise, if it were feasible, to entrust to the government the interests of our schools, and withdraw from them, or weaken, the direct and personal influence of the people?

Is it the moral influence of such a Bureau that is sought? That may have efficiency in a country where the masses look to their rulers for a standard in matters of thought and opinion. But how would it be here? The head of a bureau is the creature of a political party. It may be a Floyd or a Jacob Thompson. It may come from Georgia or Arkansas. It is, in the ordinary course of things, to be changed every four years. And what could be accomplished in that time in the way of progress or reform? Would it not become a sort of political hospital, in which politicians of various grades would be fed and housed, in return for truckling service and subserviency to a party? Let us see from the history of our own schools, what we might expect from such a bureau. It is more than twenty-five years since numbers of the leading minds of the State began to build up a better system of schools upon one already venerable by age and public favor. It had its Board of Education with its Secretary devoting his whole time and energies to the cause of

school education. It had its Normal Schools, its Teachers' Institutes and its Conventions. It had its means of access to individual minds throughout the Commonwealth, and was able to command the aid of the Government as well as of a school fund, now munificent in amount. And yet with all these agencies at work, was not the meeting of the Teachers' Association at which this resolution was adopted, the first, in a succession of similar ones, which was satisfactory as a success? Its success was gratifying in itself, but more so as it was an index of the condition of the schools which its members represented. Now what would have been the condition of our schools, if no moral power had been exerted upon them beyond that of a Central Bureau at Washington, with its agents and dependents holding office at the beck of a head or the caprice of a party? We see how this is accomplished, by a comparison of the condition of the schools of the Commonwealth. Over all, there is one law; they are all parts of one system; they are all within the influence of one Board of Education, and under the watchful eye of the same Secretary and School Agent of the State. Yet how different are the results in the different towns!—a difference which shows that it is after all not so much the law as the system, not so much high sounding names or titles, as it is the personal, individual influence of men in these localities, who are willing to exert themselves to enlighten others and to guide the sentiment of the locality in which they live. Why, for instance, do we see in Belmont, $\$13.61\frac{1}{2}$ per scholar appropriated by the town in 1864, while in Pepperell it is only $\$2.69\frac{1}{2}$: or why does Worcester appropriate $7.90 for each scholar, and Hardwick $\$1.96\frac{1}{10}$? It is because there is an interest awakened in some of these towns in the welfare of their schools, which nothing has occurred to arouse in others. And this interest, moreover, fluctuates from time to time from causes which are perceptible in the action of the several towns. The returns at an earlier period (1859) showed but $\$7.27\frac{1}{2}$ per scholar in Worcester and $\$4.90\frac{3}{10}$ in Hardwick.

Schools undoubtedly need a constant moral influence in their favor, in order to their success. But it is chiefly a home influence. What is done in New York, or Philadelphia, or San Francisco, is

little felt in Massachusetts, compared with what is effected in Boston, or Salem, or Worcester, or New Bedford. And if the teachers of Massachusetts really wish to advance the cause of school education in the country, let them maintain the high stand which they now hold, and continue to exert the influence which now emanates from their example, and they will accomplish a far higher good than by putting in motion a new political piece of machinery. AN OLD SCHOOLMASTER.

LEARNING BY ROTE.

[*From an article in the English Journal of Psychological Medicine, (vol. xii.) on "The Artificial Production of Stupidity in Schools."*]

We are convinced that a very large proportion of the stupidity now existing in the world is the direct result of a variety of influences, educational and social, which operate to the prejudice of the growing brain, either by checking its development altogether, or by unduly stimulating the sensorium at the expense of the intelligence. In the former case general obtuseness is the result; and in the latter, subjugation of the reasoning powers to the sensations and emotions. We are entitled to think these conditions strictly artificial, and to look upon them as distortions, analogous, in some respects, to the physical distortions of Hindoo fakirism. . . . . Upon testing the educational customs of the present day by even the most elementary principles of psychology, it becomes apparent that a very large number of children receive precisely the kind of training which has been bestowed upon a learned pig. There are scarcely any schoolmasters who have in the least degree studied the operations of the development of mind (indeed, it is only within a very few years that this study has borne any fruit of great practical utility); and those who have not done so cannot realize the existence of a kind of learning which is sensational alone. . . . . The first impressions made upon the consciousness of a child have a strong natural tendency to expand themselves through the sensorium, and usually do so unless

directed higher by the manner in which they are produced and maintained. For the purpose of such direction, *time* is an element of the first importance; and the idea which would be grasped by the intelligence after a certain period of undisturbed attention, will excite the sensational faculties alone if that attention be diverted by the premature intrusion of something else that solicits notice. . . . . In schools, however, under the stern pressure of the popular demand for knowledge, it is an extremely common practice to accumulate new impressions with greater rapidity than they can be received. The work laid down can often only be accomplished by means of the promptitude that is a chief characteristic of instinctive action. The child who uses his sensorium to master the sounds of his task uses an instrument perfected for him by the Great Artificer. The child who uses his intelligence must perfect the instrument for himself, must grope in the dark, must puzzle, must catch at stray gleams of light, before his mind can embrace the whole of any but the simplest question. The former brings out his result, such as it is, immediately; the latter by slow degrees, often first giving utterance to the steps by which he is reaching it. The former is commonly thought quick and clever; the latter slow and stupid; and the educational treatment of each is based upon this assumption widely as it often is at variance with the facts. The child whose tendency is to sensational activity should be held back, and be made to master the meaning of everything he is allowed to learn. He is usually encouraged to remember sounds, is pushed forward, is crammed with words to the exclusion of knowledge, is taught to consider himself a prodigy of youthful talent. The child who tries to understand his lessons should be encouraged, praised, supplied with food for thought of a kind suited to his capacity and aided by a helping hand over the chief difficulties in his path. He is usually snubbed as a dunce, punished for his slowness, forced into sensational learning, as his only escape from disgrace. The master, in many cases, has little option in the matter. Children are expected to know more than they have time to learn; parents and examiners must have show and surface, things only to be purchased at the expense of solidity and strength. A discreet

teacher may often feel sympathy with the difficulties of a pupil; but the half hour allotted to the class is passing away, the next subject is treading upon the heels of the present, and the child must complete his task like the rest; and so a budding intellect may be sacrificed to the demands of custom.

Among the children of the educated classes the circumstances of domestic life usually afford to the intelligence an amount of stimulus, which, if not of the best possible kind, is at least sufficient to compensate in some degree for the sensational work of the school. . . . . But, for the most part, the children of the poor have grown up like wild animals, excepting for the advantage of an occasional beating; and their nervous centres have received few impressions unconnected with the simplest wants of existence. Coincidentally with an entire absence of intellectual cultivation, they usually display a degree of sensational acuteness not often found in the nurseries of the wealthy, and arising from that habitual shifting for themselves in small matters which is forced upon them by the absence of the tender and refined affection that loves to anticipate the wants of infancy. They go to school for a brief period, and the master strives to cram them with as much knowledge as possible. They learn easily, but they learn only sounds, and seldom know that it is possible to learn anything more. In many cottages there are children who, as they phrase it, "repeat a piece" at the half-yearly examination. We say, from frequent experiments, that they will learn for this purpose a passage in any foreign language as easily as in English; or that they will learn an English paragraph backwards if told to do so; and that in neither case will any curiosity be excited about the meaning of the composition. . . . . They do not usually understand what "meaning" is. An urchin may be able to say correctly that a word pointed out to him is an adverb or a pronoun, may proceed to give a definition of either, and examples of instances of its occurrence, and may produce an impression that he understands all this, when the truth is that he has only learned to make certain noises in a particular order, and when he is unable to say anything intelligible about the matter in language of his own. Or he may repeat the multiplication table, and even work

by it, saying that seven times eight are fifty-six, without knowing what fifty-six is, or what seven times eight means. He knows all about seven or eight, not from schooling, but from the lessons of life, from having had seven pence or eight marbles; but of the fifty-six, which is beyond his experience, he knows nothing. The nature of the mental operations of such children is, perhaps, as little known to the teacher, to the vicar of the parish, or the kind ladies who take an interest in the school, as the nature of the mental operations of the inhabitants of Saturn. . . . .

The best recorded illustration of such sensational learning is given by the Rev. Mr. Brookfield, H. M.'s Inspector, in his official report for 1855–6. Mr. Brookfield called upon two children, aged about eleven years, "who did their arithmetic and reading tolerably well, who wrote something pretty legible, intelligible and sensible, about an omnibus and about a steamboat," to write down the answers of the Church catechism to two questions. It must be observed that they had been accustomed to *repeat* the catechism during half an hour of each day in day-school and Sunday-school for four or five years; and the following is what they wrote:

"My duty toads God is to bleed in him to fering and to loaf withold your arts withold my mine withold my sold and with my sernth to whirchp and to give thinks to put my old trast in him to call upon him to onner his old name and his world and to save him truly all the days of my life's end."

"My dooty tords my nabers to love him as thyself and to do to all men as I wed thou shalt do and to me — to love onner and sake my father and mother — to onner and to bay the queen and all that are pet in forty under her — to smit myself to all my gooness teaches sportial pastures and marsters — to oughten mysilf lordly and every to all my betters — to hut no body by would nor deed — to be trew in jist in all my deelins — to beer no malis nor atid in your arts to kep my ands from pecken and steel — my turn from evil speek and lawing and slanders — not to civet nor desar othermans good but to lern laber trewly to git my own leaving — and to do my dooty in that state of life and to each it his pleas God to call men."

Again:

"They did promis and voal three things in my name first that I should pernounce of the devel and all his walks pumps and valities of this wicked wold and all the sinful larsts of the flesh."

Mr. Brookfield remarks very justly that the error is not a mere matter of spelling, not a phonetic expression of ideas that are understood, but that it involves absolute non-apprehension of the meaning of the passages. . . . .

We have already referred incidentally to a learned pig, and to the parallelism between its training and some kinds of human education. Persons familiar with the tricks taught to animals, are aware that these may all be described as muscular actions performed each consecutively to its proper signal. On hearing the finger nails of the master click together the animal does something in obedience to the sensation; nods its head, or shakes its head, or stands erect, as the case may be. It has no idea that the nod is an affirmation or the shake a negation, and probably has no thirst for knowledge about the matter, being content to play its part correctly and escape the whip. In the case of children the medium of communication is different and the kind of response is different, but the faculty in action is commonly the same. The words of the pig's master are mere by-play, intended to amuse the audience, and the signal is conveyed by other sounds. The words of the human teacher or examiner, his questions for instance, are the signals to the child, each requiring its appropriate answer; but, like the signals to the pig, they are aural sensations, capable as such of producing muscular action through the medium of the sensorium alone. The responses of the child are in words — that is to say, in sounds that he has been taught, and that he remembers, but of which he need not understand one iota in order to repeat them, any more than the pig need understand the affirmative or negative character of its nod or shake. In the human species articulate speech is an act precisely analogous to locomotion, requiring the combined and harmonious working of several muscles and the guidance of sense, but in no way essentially connected with the intelligence; and the child may make the right

noises in the right order, just as the pig does not nod its head when the signal requires it to be shaken. . . . .

School teachers and managers seldom observe this, because they seldom look deep enough. They are mostly unacquainted with the complexity and extent of sensational operations in the young; they have scarcely ever been accustomed to analyze the acts of the mind, and they think they have probed the depth of intellectual consciousness before they have even approached the surface.

A LESSON IN ETYMOLOGY.

[We propose to give in each number of the *Teacher* at least one lesson on some subject taught in our common schools, or connected with subjects taught in them, and usually drawn from original sources, or from books not accessible to many of our readers. We are promised help in this department of our labors, and shall hope in this way to make ourselves a pleasant visitor to many school-rooms. Our readers must suppose our lesson addressed to the *children*.]

The English is a composite language, and contains words derived from many sources, but by far the greater part are taken from two — from the Anglo-Saxon, which is the true parent of the English, and from the Latin, either directly or through the Norman-French. I want to give some examples, in this lesson, of the help that is afforded to a thorough knowledge of our mother-tongue by the study of its venerable parent, the Anglo-Saxon, by tracing some words to their origin in that language.

The words "pond," a piece of water, "pound," a place to put stray cattle in, "pin," the little instrument we use so many of, "bin," a place to put corn in, and "pen," an enclosure for sheep or pigs, are words you probably never thought of connecting together in any way. But if you examine them, you find that there is one idea common to them all, that of *enclosing*, or shutting in. A pond is a piece of water which you can usually see to be

enclosed on all sides by land, and not, like the ocean, apparently illimitable; the pound and the pen are places where cattle are shut in; the pin is something you use to close up a rent or an opening; in the bin (observe that the letters b and p are both labials, or made by the lips, and therefore easily interchanged,) are shut up corn and wine. You might therefore suspect that these words, so similar in sound, and, as we now see, quite similar in meaning, might have a common source; and that we find to be the case, for they all come from the Anglo-Saxon verb *pyndan*, to shut up.

Does "pen," the implement we write with, or does "pound," the weight, come from the same source? No: the first comes from the Latin *penna*, a feather, and the second from the Latin *pondus*, which itself comes from *pendēre*, to hang. So you see that words having the same sound are not always derived from the same source.

Let me give another example of the same kind. "Shire" means county, as when we speak of a "shire-town," meaning the town in which the county courts are held, or as in Hampshire, Yorkshire, &c. Can this possibly have anything to do with a ploughshare? Or can a ploughshare be connected with a tailor's shears? Or can that useful implement have anything to do with the sea-shore, or the sea-shore with a share in a railway — or a railway share with a sheer precipice of five hundred feet? Now suppose that in Anglo-Saxon there is a verb *sceran*, meaning to divide, or cut off. See if you can trace the same meaning through all the words I have enumerated.

Did it ever occur to you to ask what was meant by a "neat's" tongue and "neat's-foot oil?" And what does Shakspeare mean when he says, in King Henry VI.

> "Methought he bore him in the thickest troop
> As doth a lion in a herd of *neat*."

It clearly does not mean "clean." You must look it out in an Anglo-Saxon Dictionary, and there you will find "Neát — cattle — a beast." So a neat's tongue is, as you probably know, an ox's or a cow's tongue. "Neat" meaning clean, comes from the Latin adjective *nitidus*, shining. At first sight "fallow" deer and

"fallow" land do not seem to have much to do with each other; but when we find the Anglo-Saxon adjective "falewe," meaning yellow, we see why the same word is applied to both.

When baby is troublesome, I am afraid we sometimes get vexed, and call him "a mischievous little *imp*." But what can Shakspeare mean when he makes Lord Cromwell talk to King Henry of "that noble *imp*, your son?" or Spenser, when he addresses the muses thus, "Ye, sacred *imps*, that on Parnasso dwell?" We find out when we discover an Anglo-Saxon word, "impian," to graft, or plant, and a Swedish noun, "ymp," meaning a scion, bud, or graft.

Thus you see how, in course of time, words change their meaning. Our word "knave" is the Anglo-Saxon "cnapa," the modern German "knabe," which merely means "boy." So, when in old English, you read of a "knave-child," you must not suppose he is a little rascal, but only that he is a boy, and not a girl.

Our language, together with almost all the other languages of modern Europe, as well as the Latin and Greek, belong to the same great family, the Aryan or Indo-European; and to it belong also languages as far off as those of Hindoostan and Persia. All these languages have a great many words which were originally the same, or derived from the same source, though in the different languages they have often become so changed that only scholars accustomed to the study can recognize them. Sometimes however this is very easy. Let me take as an example the word "ball." In Latin it is "pila," the diminutive of which is "pilula," and from that we get "pill," which is a very unpleasant little ball to most people. In Italian it is "balla," in French "balle," in Spanish and Portugese "bala," and in English "ball." In French a large ball is "ballon;" hence our "balloon": a small ball is "ballot," our "ballot," for voting is sometimes done by balls. In French it is also "boule" and "boulet"; hence our "bullet"; or it is "pelotte" which is our "pellet." In German it is "bohle," and from that we get "bowl" to hold liquids, to play at "bowls," and the "bole" or round part of a tree: and finally in Dutch it is "polle" and from that we get "poll" in poll-tax, i. e., head-tax, for the head is a ball.

Count the English words I have enumerated and you will find *ten*, all meaning round bodies, and all from the same root.

I have taken most of my examples from a book not easily obtainable; but the little book of Archbishop Trench entitled, "On the Study of Words," has been reprinted in this country and will be found full of entertaining and instructive knowledge of this kind. ED.

GLEANINGS FROM THE GERMAN.

IRONY. Hence the very doubtful expediency of the use of ridicule in dealing with children. With grown persons it is often a highly useful means of calling out the better feelings. But in children these feelings are seldom strong enough to bear such treatment, and to carry off the victory in the conflict which is excited. Hence they are morally weakened by ridicule; or else a reaction is occasioned, and a personal feeling in regard to the teacher excited, which interferes with his future usefulness. The feeling of alienation and estrangement, which is only momentary in the teacher, continues in the mind of the pupil and renders him hostile or insensible to the best efforts of the teacher afterwards. —[*Beneke.*]

PRAISE. The habit, on the part of a teacher, of giving hearty praise, is of great importance, is essential to him when he has occasion to blame. How often do we see children who are only willing to take admonition or to allow it to operate on them when coming from one respecting whom they have learned to understand that he also knows how to praise. When the admonition has not this support, its effect is too often wholly lost, or else it serves only to excite hostility and alienation.—[*Beneke.*]

OBJECT-TEACHING. Object-teaching may very easily be abused, for it may very easily be made to consist of the most commonplace trivialities. Whoever makes it the only principle of his teaching will be apt to neglect the higher, nobler and more spiritual part of his pupils' minds for the sake of the cultivation of the lower

senses. Unless conceptions are made to follow perceptions, and judgment and reasoning power are built up upon them, it will go ill with the pupils' mental development; and when the mere sensuous is not elevated to an æsthetic or a moral feeling and the mere idle curiosity to a conscious voluntary effort, the child's education will remain in the lowest stage, and never reach any real completeness.—[*Curtmann.*

It is a great mistake to suppose that mere perception is sufficient for knowledge. Complete knowledge belongs only to the pure thought of the comprehending reason, and perception is therefore only the beginning of knowledge. It is only when we have raised ourselves to this power of abstract thought respecting a thing, that we have a *true* and *complete* perception of it; the perception is merely the form in which the knowledge is brought together again. In the immediate perception I have indeed the whole thing before me; but the thing cannot stand in my mind as an analyzed and understood whole till there is added to my perception of the form a developed systematic knowledge. It is therefore only the cultivated man who has perceptions that can separate the accidental from the essential, and so form out of the objects the senses present, true conceptions by the help of reason.—[*Hegel.*

READING. Good intelligent reading requires a fine intelligent sense and much study; there is much goes to the making of a good reader, and it presupposes many other attainments. Practice in reading, when combined with reflection upon what is read, is, when we examine it closely, an accomplishment so highly to be valued, that perhaps the greater part of ordinary school instruction might with advantage take that form, and we ought to hope that as its capacities are more thoroughly understood, it will take its place as one of the leading methods of culture.—[*Hegel.*

TRUE KNOWLEDGE. — True culture consists not in an aggregate or conglomerate of knowledge, but in complete clearness in that department which we have chosen for ourselves. Hence I counsel you to strive constantly to discover what parts of that still demand investigation at your hands. Socrates placed himself quite on an equality with the sophists, as far as regarded the fact that he, as well as they, knew nothing: but he placed himself above them in this,

that he *knew* that he knew nothing, while they did not. Follow his example, and turn to the dark sides of your consciousness many times and often. A later insight, gained, perhaps, from some quite new quarter, will throw an unexpected light on these dark places. Whoever has once had the delight of this experience, will never doubt that, by honest striving, he can always succeed in reaching clear convictions. Providence has given every man the power to reach that degree of knowledge and wisdom which will lead him to true life. It is the destiny of humanity, as a whole, and of every individual man, to be guided by the light of Truth. Before that sun, the clouds of error and deceit are sure to fade away. Let "Forward!" be your watchword your whole life through. — [*Diesterweg.*

We live in a period of disciplining culture, and civilizing, but far away from the period of moral education. In the present condition of man, we may say that the fortune of states grows with the misery of men. And it is still a question, whether, in a rude condition, where all this culture was not to be found, we should not be happier than in our present condition. For how can we make men happy, when we do not make them moral or wise? The quantity of evil is not by that means diminished.

— [*Kant.*

Two inventions of man may well be looked upon as the most difficult, viz.: the art of government, and the art of education; and men are still at variance in respect to the fundamental ideas of both.—[*Kant.*

We ought to read the ancients, in order to learn to live as they did; but the philologists think we ought to live in order to read the ancients.—[*Menzel.*

The domestic novels for children run over with father's love, mother's love, brother's love, sister's love, grandfather's love, grandmother's love, uncle's love, aunt's love, teacher's love, &c., and with all possible sentimentalities and softnesses, domestic comedies and hypocrisies. The coxcombry of virtue and the twaddle about feeling in these books cannot fail to exert a bad influence on children, and must either appear to them ridiculous or train them up to dissimulation. True domestic virtue never has

so much to say for itself; genuine feeling is silent; and if my children should ever come to me with such pretty expressions as we find recorded of clever and pious children in thousands of these child's books, I should scold them as affected fools or whip them as accomplished hypocrites.—[*Menzel.*

No teacher can pour his own thoughts into me; he can only awaken *my* thoughts by his words. Words are merely the instruments, and I must learn to use them with my own powers, and in my own way, or I have learned nothing. The best test, therefore, for ascertaining whether any one has really learned a thing, is to see whether he can reproduce it in his own way and in his own words.—[*Herder.*

AFTER-SCHOOL THOUGHTS.

As the last faint echo sounded low
Of the tread of little feet,
A shadow darkened the sunny glow,
That had made the day seem sweet.
Methought I could hear, in the vacant room,
A sound, as of fluttering wings;
And dirge-like sounded the mystic hymn
That the breeze with the pine-tree sings.

I thought of the sparkling, flowery morn,
When each joyous little one,
Had greeted me with the morning kiss
And a heart that with love o'errun;
The sunshine came in through the open blind,
And fell on the motto green,
Till it seemed that the "Peace" of "Wisdom's ways,"
Like a vision of angels was seen.

With loving obedience, those same little feet,
When the morning school-bell had rung,
Had quickly hastened each child to his seat,
Ere our morning hymn we sung;
With rev'rence each little head was bowed,
While the solemn chant was given,
Of that beautiful prayer that our Saviour taught,
And we felt that 'twas heard in Heaven.

'Twas sad indeed that a shadow should fall
O'er the close of a day like this;
That a glance o'er its records should swiftly recall
A thing that was sadly amiss.
As the gentle sound of the fluttering wings
In far distance seemed dying away,
I recalled the grief on a childish face,
Like a cloud on the skies of May.

For some trifle, by thoughtless childhood done,
I had quickly and harshly spoken;
And the fast-heaving sob of the little breast
Showed the orphan almost heart-broken.
That grief has haunted my after-hours
That have sped so swiftly along,
And I bitterly wish that remorse had the power
To efface the dark mem'ry of wrong.

But no! in the tender heart of the child
The record on earth is made;
And his angel guardian, hovering near,
The record to heaven conveyed.
And, humbled and sad, I think with awe
Of the import so lasting there lies,
Perchance, in the sound of a careless word,
That 'twill meet us beyond the skies;

And resolve that henceforth my ministry,
With the blessing of Christ, shall be,
With more patience, more loving earnestness,
From harshness for ever free;
That if there be present one tender heart,
That not elsewhere a joy may know,
At school it shall be my sweetest care
That it taste of heaven below.

SYLVIA.

Editor's Department.

On being installed into office the editor found himself in possession of an almost empty *literary* treasury, and, from want of time to organize his forces, has had to make up his present number more entirely from his own resources than he hopes to be obliged to do hereafter. He believes, however, that his readers will not regret the appearance of the selections he has made from foreign sources; and he proposes to make a judicious selection from such sources a permanent feature in his management of the *Teacher*. We have much to learn from foreign precept and example; and the editor's investigations into educational literature have taught him that much material of extreme value to teachers lies hidden in out-of-the-way corners, some of which he believes his readers will thank him for bringing to their notice. Nevertheless, he trusts he shall not be obliged to draw too largely on such supplies, but that original matter of equal value will be furnished him in sufficient abundance.

He would ask particularly for assistance in the department of intelligence both personal and general. It is a feature which ought to characterize a journal like this, and it is a department in which the editor will be peculiarly dependent on the vigilance of his friends and contributors.

And again, in the matter of book notices, the editor holds that the only really competent reviewer of a school-book is the teacher who has fairly and thoroughly tested it in the school-room. He would call on all teachers who have thus tested new text-books to give the impartial result of their examination. It is of great importance that the public should be guided to the selection of the best school-books by the actual results of such test examinations; but the editor will always hold himself ready to notice the contributions of his publishing friends by an account of the contents of every new school-book, and by giving fairly and frankly the results of his own or of some competent reviewer's general impressions.

AMERICAN SOCIAL SCIENCE ASSOCIATION.

Before our magazine reaches its readers, the first regular meeting of this new association will have been held, and in our next number we shall hope to give some account of its proceedings, so far at least as they relate to the subject of Education. As many of our readers know, the association was formed at a preliminary meeting called by the Board of State Charities, and held at the

State House on the 4th of October last, at which His Excellency Gov. Andrew presided. A permanent organization was then formed, modeled after that of the British Association of the same name, and, like that, divided into Departments, — 1st, for Education; 2d, for Public Health; 3d, for Economy, Trade, and Finance; 4th, for Jurisprudence and the Amendment of Laws. The following officers were appointed: President, Professor Wm. B. Rogers, LL. D., President of the Mass. Institute of Technology.

Department of Education. Vice-President, Rev. Thomas Hill, D.D., President of Harvard College; Director, Rev. E. O. Haven, D. D., President of the University of Michigan. Secretary, Hon. Joseph White, Secretary of the Mass. Board of Education.

Department of Health: Vice-President, Dr. Samuel G. Howe; Director, Mrs. Mary Eliot Parkman; Secretary, J. C. White, M. D.

Department of Economy, Trade, and Finance.—Vice-President, Hon. Geo. S. Boutwell, M. C.; Director, David A. Wells, Esq.; Sec., Hon. Geo. Walker.

Department of Jurisprudence.—Vice-President, Francis Lieber, LL. D.; Director, Hon. Emory Washburn; Secretary, Prof. Theodore W. Dwight.

General Corresponding Secretary, Samuel Eliot, LL. D.; General Recording Secretary, F. B. Sanborn, Esq., Secretary to the Board of State Charities; Gen. Treasurer, James Jackson Higginson, Esq., 40 State Street, Boston.

The British Association, upon which the American Association is modeled, has been in existence eight years, and has published as many volumes of interesting and important transactions. It was founded by a few earnest laborers in the cause of humanity, under the lead of Lord Brougham, who has been from the beginning its President. So great was the interest felt in the subject, however, that, very early, a large number of justly distinguished persons became members of the Association. Among these were Earl Russell, Lord Shaftesbury, the Earl of Carlisle, Lady Byron, Edwin Chadwick, Sir Walter Crofton, Miss Florence Nightingale, Sir James Kay Shuttleworth, Mrs. Jameson, Lord Houghton, Miss Mary Carpenter, Dr. Lankester, Matthew Davenport Hill, Gen. Sabine, Arthur Helps, and Sir Fitzroy Kelly. At the annual meetings, which were held successively in Birmingham, Liverpool, Bradford, Glasgow, Dublin, London, Edinburgh, York, and Sheffield, a large attendance testified to the public appreciation of the labors of the Association; while the course of legislation, following the changes wrought in public opinion, gave evidence that the measures advocated at these meetings were of a practical sort. Several important bills, resulting in Acts of Parliament, have been carried by means of the discussions and the exertions of the Social Science Association.

As this is a movement which we think ought to be peculiarly interesting to teachers, we copy from the prospectus the following account of the objects of the Association:—

"This association proposes to afford to all persons interested in human improvement an opportunity to consider social economies as a whole.

"The persons composing it are expected to meet together to read papers and pursue discussions, and to seek the assistance of those who have a practical acquaintance with reform, as well as that of purely abstract reasoners.

"They are to collect all facts, diffuse all knowledge, and stimulate all inquiry, which have a bearing on social welfare. It has long since been shown that the man of science, who confines himself to a specialty, who does not, at the very least, conquer the underlying principles of other branches of scientific inquiry, is necessarily misled, and cannot avoid frequent mistakes. To have any perception of the perspective of his subject, he must see it in its relation to other subjects. Something like this is true of those who investigate the necessities of society. If they associate themselves together, they have the advantage of each other's knowledge; they do not misunderstand their own relative positions; and they insure an economy of time, labor, and money.

"We would offer the widest hospitality to individual convictions, and to untried theories, provided only that such convictions and theories are the fruit of a serious purpose and an industrious life. To entertain the vagaries of the indolent would be at once undignified and unprofitable.

"1. Under the Department of Education will come every thing relating to the interests of Public Schools, Universities, and Colleges; to Reformatory, Adult, and Evening Schools; to Instruction in the Useful Arts; to Systems of Apprenticeship; to Lyceums, Pulpits, and the formation of Societies for the purposes of Public Instruction. In this department will be debated also all questions relating to Classical, Linguistic, and Scientific Studies, in their proportion to what is called an English Education; and the bearing of the publication of National and Patriotic Memorials upon Popular Culture.

"2. Upon the Department relating to Public Health a very large proportion of the popular interest will naturally be fixed. All Sanitary and Hygienic matters will come before it; and what the Sanitary Commission has learned in the last four years will be made available, through its action, to the people at large. The subjects of Epidemics, of the origin and spread of Cholera, Yellow Fever, and Eruptive Diseases, will be legitimately discussed here. It will consider all questions of Increase of Population, Vaccination, Ventilation of Public and Private Buildings, Drainage, Houses for the Poor, the Management of Cemeteries, Public Baths, Parks and Public Gardens, Places of Recreation, the Management of Hospitals and Insane Asylums, the Adulteration of Food and Drugs, all questions relating to the Duration of Human Life, Sanitary Regulations for the Army and Navy, and all matters of popular interest connected with medical science. We shall look to our ablest physicians and surgeons for contributions to this department.

"3. Under the head of Social Economy, we shall consider Pauperism *actual* rather than legal, and the relation and the responsibilities of the gifted and educated classes towards the weak, the witless, and the ignorant. We shall endeavor to make useful inquiries into the causes of Human Failure, and the Duties devolving upon Human Success. We shall consider the Hours of Labor; the Relation of Employers and Employed; the Employment of Women

by itself considered: the Relation of Idleness to Female Crime; Prostitution and Intemperance; Workhouses; Public Libraries and Museums; Savings Banks and Dispensaries. Here, too, will be discussed National Debt; the Subjects of Tariff and Taxation; the Habits of Trade; the Quality of our Manufactures; the Control of Markets; the Monopolies in the Sale of Food, or the Production of articles of common use; the Value of Gold; and all questions connected with the Currency.

"4. In the Department of Jurisprudence, we aim to consider, first, the absolute Science of Right; and, second, the Amendment of Laws. This department should be the final resort of the other three; for when the laws of Education, of Public Health, and of Social Economy, are fully ascertained, the law of the land should recognize and define them all. Under this head will be considered all questions of the justice, the expediency, and the results of existing statutes; including their administration and interpretation, and especially their bearing on Suffrage, Property, Privilege, Debt, Crime, and Pauperism. Here, then, will come up the vexed questions of Prison Discipline and Capital Punishment."

It will thus be seen that our scope is sufficiently general, and the field for our labors sufficiently broad. But we shall, without doubt, discover other topics which equally claim attention; and shall not refuse to entertain any inquiry by which the progress of humanity may be investigated or promoted.

Any person can become a member by the payment of $3 to the Treasurer of the association, and we trust its roll will include the names of many teachers.

TEACHERS' SALARIES.

We give below a schedule of the proposed salaries of the Boston public school teachers for the coming year, which, we presume, in spite of some technical objections on the part of the Common Council, will be definitely adopted before our magazine reaches its readers. The city of Cambridge has also raised the salaries of its teachers 50 per cent.; and we presume that the same action has been taken in many other places. We need hardly point out that at the present rate of living this is an act not of generosity so much as of simple justice to the members of one of the most laborious of professions, and that any narrow penny-wise policy on the subject now when so many new avenues are tempting men and women away in new directions, will surely result in a permanent lowering of the standard of educational ability. No greater misfortune, we think, could happen to the community than this. So far from being diminished, the scale of teachers' salaries should be increased, not only relatively to the increased cost of living, but in still greater proportion; for we believe that the services of public school teachers have never yet been adequately remunerated. We have this month to chronicle the departure from the profession in a neighboring State of an able and successful teacher. We trust we shall not have to record any similar losses in our own.

[*Schedule of the Salaries of the Officers of the School Board, and Teachers of the Public Schools, of the City of Boston, with proposed increase, December,* 1865.]

Office or Grade.	Position or School.	Rates June, 1863.	Proposed Salary. 1865.
Superintendent	Of all the Schools	2,800	4,000
Secretary	Of the School Board	1,000	1,500
Masters	Latin, High, and Normal	2,800	3,500
Submasters	Latin and High	2,000	2,500
Ushers	Latin and High	1,600	2,000
Masters	Grammar	2,000	2,500
Submasters	Grammar	1,600	2,000
Ushers	Grammar	1,000	1,500
Head Assistant	Normal	600	1,000
Assistant	Normal	500	800
Head Assistant	Grammar	500	800
Assistant	Grammar	450	600
Teacher	Primary	450	600
Sewing Teacher	1st Grade	350	500
Sewing Teacher	2d Grade	300	450
Sewing Teacher	3d Grade	225	350
Sewing Teacher	4th Grade	200	310
Sewing Teacher	5th Grade	175	275
French Teacher	Latin	450	500
French Teacher	Normal	450	500
German Teacher	Normal	450	500
Drawing Teacher	High	450	500
Drawing Teacher	Normal	850	1,000
Music Teacher	Normal	400	450
Music Teacher	Grammar	100	150
Music Teacher	Primary		2,000
Gymnastic Teacher	Of all the Schools		

MEETING AT THE EDUCATIONAL ROOM.

DECEMBER 16TH, 1865.

Mr. Frost, of Waltham, in the chair.

Mr. S. C. Stone, of Newton, was chosen Chairman of the next meeting.

Mr. Geo. K. Daniell, Jr., of Milton, was appointed permanent Secretary of the meetings.

Mr. Frost, of Waltham, opened the discussion. The question read as follows: "What should children be taught from the age of fourteen till they graduate from the public schools?" Mr. F. thought that the subject was one of the first importance. It was one also upon which there existed a disparity of opinion which was steadily increasing. A child of that, or any age should be taught that which will be of the most service to him in after life. We have but one life

to live, and hence the greater need of care in our manner of preparing for it. At the age of fourteen, the question must be met — Which course shall we pursue? Shall it be the classical, or the scientific, or both? The time was when the classical seemed the only course. Within the past forty years all the natural sciences have, as it were, arisen. Philosophy, Chemistry, and Astronomy have been raised from a vague and doubtful state, to one of scientific accuracy. It is argued that the classics alone can thoroughly discipline the mind. If this is so, comparatively few people have, or can have, mental discipline. It is sometimes said that we are, as a people, progressing, and yet we look constantly to Greece and Rome for models. We turn too much to the past, and too little to the present and future. Why should not the study of Everett and Irving be as valuable to a boy as that of ancient authors? Many a boy spends years in the study of Latin and Greek who is almost a stranger to the English language. The remark was made at the last meeting, that boys would study butterflies enough if left to themselves. But he believed in teaching them such things. He believed that the effect of the constant study of the phenomena of nature around them was most salutary; far more so than that of a dead language. He then described the manner in which Dr. Hill, of Harvard College, most beautifully illustrated, during a visit to his school, the catching and eating of a fly by a "Devil's Darning-needle," and described the perfection of skill illustrated by the movements of an insect that at first appeared so awkward. Mr. Frost thought the benefit derived from such studies, far greater than that received from the study of Greek and Latin verbs. He would abolish every high school in Massachusetts except in the great centres. In the larger towns, men were wearing themselves out, as teachers of high schools, to no worthy purpose. They are required to do the work of half a dozen professors, and to do it equally well. Should so much attention be given to a language of three thousand years ago, because it was called classical? If we would study such models as the speech of Logan, we should gain far greater benefit. The day is coming when it will be thought sufficient to study nature and English authors. "Let the dead past bury its dead."

Mr. Payson, of Chelsea, said that he could not read Greek at all, and read Latin but very little. He could not therefore speak from personal experience. He knew that in many high schools too much labor is required of the teacher. He had a brother who had ruined his health in this way. The fact is, that, universally, teachers teach and scholars study twice as much as they ought to. He should not wish, however, like the last speaker, to abolish high schools altogether.

Mr. Marston, of Cambridge, spoke of the subject as one of great importance. He wholly dissented from Mr. Frost's idea of abolishing high schools. Many obtained knowledge in this way which they could get in no other. He thought too much time was given to the study of Latin and Greek. He would have scholars taught instead, more of Natural Philosophy and Chemistry. He would have them taught just what they would need in after life. He would also have

them taught human nature; would have pointed out to them the nature and cause of different crimes. He would explain to them why one man is happier than another, and thus teach them principles of action.

Mr. Adams, of Boston, spoke of the wide difference which existed in the estimate which different teachers formed of the relative importance of the various branches of study. Some spent most of their strength upon Geography, others on History, while still others saw only through mathematical glasses. In our high schools the variety of studies was so great that they were very liable to be gone over superficially. Books were swallowed, but not digested. The object of the scholar was, too often, to get through the book, rather than to get the book through him. He thought it well to have a division of study, so that each scholar may learn that for which he has the strongest predilection, and which will be of the most use to him in after life. Whether they pursue a scientific or classical course should depend upon their object in life.

Mr. Daniell, of Dorchester, wished to check the current which seemed to be setting strongly against classical education. Men forget that language is itself a physical science, which cannot be mastered by the study of only one branch. The question will be asked, why, then, not study modern languages rather than ancient ones — live languages instead of dead ones? Why not study French, German or Spanish, instead of Latin and Greek? Even these, however, were very little used in this country, and the practical benefit of knowing them is comparatively small. The sentiment of the community was now very strong in favor of a scientific, instead of a classical education. He thought, however, that the idea was carried to a dangerous extreme.

Mr. Marble, of Boston, said that the discussion had wandered from the real subject at issue. Education is not merely the gaining of information. The great object is discipline. A child, when he leaves school, has hardly reached the door of that great world in which he is to act. He should not be put on any hobby, but his powers should be so trained as to fit him to act well his part. Nearly all the great men of the world were classically educated, All children could not be classical scholars, but the road to it should be left open. Stop the study of the classics, and you shut the door to progress. The chief boast of Massachusetts is, that any of her children may receive in her public schools, a classical education. High schools open the way to much that cannot otherwise be obtained. Boys will study butterflies readily enough of themselves.

Mr. Hagar, of Salem, was the next speaker. The subject, he said, was a large one. It was much discussed by the best minds in the country, and especially at the present time. There seemed to be a conflict between the advocates of the different systems. He saw no necessity for it. They should both be pursued. He thought the English language should be much studied, but it cannot be as well studied in any other way as by the study of language as a science.

The study of Milton has been referred to, but Milton cannot be thoroughly appreciated without a knowledge of Latin. If he wished his boy to study Milton, he would have him first study Latin. There were two objects in

studying languages,—one was to ascertain the meaning of the author, and the other to express that meaning clearly in our own language. A boy who has worked out a good thought from the Latin, will be sure to remember it, while if he had read the same in English he would forget it. The severe and critical study required to translate, is excellent discipline. The power we gain in this way may be applied in any direction. It can be best gained by the study of Latin. Why do people often seem to differ when they do not? Simply because they do not rightly appreciate the meaning of words. This knowledge can only be gained by the study of language, and one must go beyond his own language. It is true that classical teachers give too little time to the natural sciences. He would have them go together. He had a high opinion of our system of high schools. If Massachusetts had anything to boast of, it was this. It was true they had some defects, but he would cure these not by killing the patient, but by administering the proper remedy. Our grammar schools owed much of their excellence to the higher grade. They raised the standard of attainment, and made the teachers more careful.

Mr. Frost explained that it was only as they made a classical education the only one attainable, that he advocated their abolition.

Mr. Kimball, of Boston, would have both kinds of education. He differed from Mr. Marble. He did not believe that discipline was the sole object of education. He thought facts very essential. The study of the sciences conduces more to the development of certain faculties. It was a mistake to say that nearly all great men were classically educated. Five-sixths of the members of the British Parliament were not so. The history of our own country also furnished a refutation of the theory.

Mr. Coller, of Roxbury, said that we were in danger of not clearly discerning the two-fold object of education,— Knowledge and Discipline. The latter was undoubtedly the more important. From the study of the classics we get both. Even the extreme advocates of scientific education acknowledge the value of Latin and Greek as a means of discipline. Prof. Atkinson, in his pamphlet declares himself as not opposed to classical study, and speaks in high terms of the resident graduates in English Universities. We get a certain power from the critical study of language, which we can get in no other way. It has been said that the first scholars in high schools disappear in college, and the first in colleges disappear in the world at large. Mr. C., however, dissented from this view, and mentioned Sir. Robert Peel, and Mr. Gladstone as instances to the contrary. Lord Macaulay, also, in refutation of this theory, gave the history of forty-three men who were first in college who became noted in after life.

Mr. Daniell, of Milton, said that the object of education being knowledge as well as discipline, it follows that the best course of study is that which most thoroughly combines the two. The knowledge gained by the study of the natural sciences is generally admitted to be of more practical value than that obtained from the classics. He had high authority, also, for saying that the discipline was equally as good, and quoted from Alton Locke in support of this theory. It had been stated that most of the great men of the world were classi-

cally educated. He would ask, however, what kind of great men were meant? If great scholars, he admitted the fact. If great writers, it was, perhaps, generally true, though with important exceptions, as Washington Irving for instance. But if they meant men who were great in action, great in achievement, he thought the majority would be found very strong on the other side. It was wholly unnecessary to adduce instances of these, as many would at once occur to every mind.

The following question was then proposed for discussion at the next meeting. —How shall children be educated who will not study?

Adjourned.

GEO. K. DANIELL, JR, *Sec.*

INTELLIGENCE.

PERSONAL.

Henry E. Sawyer has declined the offer of the principalship of the Springfield High School. His salary has been raised at Middletown, Conn., and he has decided to remain there.

Rev. William C. Stebbins, of Groton Junction, has accepted the appointment of principal of the Springfield High School, at a salary of $2,000.

Mr. John W. Allen, for the past ten years the successful principal of the Central school of Norwich, Conn., has resigned, to take the place of agent to the Mutual Life Insurance Company of New York. Mr. N. H. Whittemore succeeds him.

Mr. J. R. Fletcher, a graduate of the Bridgewater Normal School, now a clerk in the Treasury department at Washington, has, for the last year, labored with great success in an evening school for the freedmen in Washington.

EDUCATIONAL INTELLIGENCE.

Connecticut. The new State Board of Education have just issued the first of a series of educational papers for the people of the state. They propose,

1. To elevate the standard of admission to the Normal School at New Britain, and thus increase its efficiency and the qualifications of its graduates.

2. To reorganize the Teacher's Institutes, and by a better system remove the indifference with which they have been regarded in that State.

3. To secure uniformity of text books in each town. Hitherto the practice prevails in some towns, of using in the same district and the same school, different books of the same grade on the same subject. We are glad to see that the Board does not propose to prescribe "what books alone shall be used in all the schools of the State," as they are by law impowered, but not required to do. While uniformity ought to be required by the committee *in each town*, it would

be an unwise policy for the Board to dictate what alone should be used throughout the State.

4. To secure uniformity of school registers and returns.

5. That the library appropriations, made by the State, be used to place a copy of the last revised edition of Webster's Quarto Dictionary in every school of the State.

Tennessee. Governor Brownlow gave an address at the late meeting of the State Teachers' Association at Knoxville.

Chicago. The highest salary paid to a female teacher, in Chicago, has been $500. The city Board of Education favor a general advance of salaries.

State Normal University, Illinois. The number of pupils in the normal department last year, was two hundred and eighty-two; in the model school, four hundred and eleven; total six hundred and ninety-three.

Indiana. After numerous official visits to different parts of the State, the Superintendent of Schools, Hon. Geo. W. Hoss, complains bitterly of the shameful abuse of school property. "The school-house doors are sometimes broken, or battered down with rails, to let in parties who hack, cut, and break, or otherwise mar or defile the desks or other furniture." He proposes measures at once to arrest this vandalism. Indiana has been lagging, but the State is waking up, and the future is hopeful. The Teachers' Institutes in the State have been more numerous and better attended than ever before, and are effecting a great work for Indiana.

Minnesota is likely to have a munificent school fund. The fall sale of school lands in this State, has just been completed. Two hundred and fifty thousand acres were sold for $141,000. It is estimated that the money received from the school lands will ultimately reach $12,000,000. It is already near $1,000,000, and land has been offered in but twenty-two counties in the State, and less than half that has been sold.

The Wesleyan Academy, at Wilbraham, is overflowing. At the opening of the present term (Dec. 13), several students were compelled to return to their homes, being unable to obtain rooms, either in the boarding house or with private families.

Rev. J. P. Chown, of England, who spent the last summer in this country, gave a lecture in Exeter Hall, London, November 2d, on America, in which he said: "As to education, it was a striking feature of their country. There was no doubt that in this matter they were far in advance of us. Their system was one of the most wonderful schemes he could conceive of. It employed some of the noblest buildings in the New World, and all were open to the poorest boy in the land, who might sit side by side with the son of the President. Throughout the States they could not find half a dozen log huts without a school."

A Noble Gift.—Dr. John Green, in his last will and testament, did not forget the noble institution founded by him during life. The Green library is to receive a legacy of $30,000. One quarter of the income from this fund is to be added

annually to the principal, the remainder being expended for books and improvements. Other reversionary legacies, and the increase of the original legacy, will eventually swell the gift to $100,000, after which three-fourths of the income is to be applied to the circulating department of the library. The bequest is so made as to relieve the city from all expense relative to the library.—*Worcester Spy.*

From the Annual Catalogue of Amherst College, which we have just received, we find that it has the present year a total of 203 undergraduates.

The "First Annual Catalogue of the Officers and Students and Programme of the Course of Instruction of the School of the Mass. Institute of Technology, 1865–6," contains the names of *seventy-two* students. We propose in a future number, to take advantage of our own connection with this new scientific school, to give some account of its organization and objects. The following is a list of its Officers of Instruction, so far as they have been appointed: Wm. B. Rogers, L. L. D., President; John D. Runkle, A. M., Professor of Mathematics and Analytic Mechanics; Wm. B. Rogers, Professor of Physics and Geology; Frank H. Storer, S. B., Professor of General and Industrial Chemistry; Charles W. Eliot, A. M., Professor of Analytical Chemistry and Metallurgy; Wm. P. Atkinson, A. M., Professor of the English Language and Literature; Ferdinand Bocher, Professor of Modern Languages; John B. Henck, A. M., Professor of Civil and Topographical Engineering; Wm. Watson, Ph. D., Professor of Descriptive Geometry and Mechanical Engineering; Wm. R. Ware, S. B., Professor of Architecture; James D. Hague, Professor of Mining Engineering.

We shall be happy to send the catalogue to ony one desiring further information.

BOOK NOTICES.

A Handbook of Latin Poetry, containing selections from Ovid, Virgil, and Horace; with Notes and Grammatical References. By J. H. Hanson, Principal of the Classical Institute, Waterville, Me., and W. J. Rolfe, Master of the High School, Cambridge, Mass. Boston: Crosby & Ainsworth, 1865. 12mo. pp. vi. and 776.

This is a very handsome school-book, and one which we should think would be sure to be as popular with our classical teachers as we believe the companion volume of Latin prose has already become. We are glad to see in it the wearisome last six books of the Æneid omitted, and selections from Ovid and Horace substituted in their stead. We trust that no difficulty will be encountered in making this change in our classical schools, from the fact that Horace is an author read in college, and not at present in the list of those required for admission. It seems to us an excellent plan to introduce the student to some of his difficulties and peculiarities by careful *school* instruction.

No teacher is fully qualified to criticise such a book as this without having first

gone over it with a class of pupils; but we can say this after a cursory examination, that both in the formation of their text, and in the selection of their notes, the editors have followed the very best and latest authorities, and seem to have done their work with discretion and good judgment. We are glad to see the excellence of Prof. Harkness' admirable Latin Grammar recognized by its being referred to first by the letters Gr., as emphatically *the* grammar to be consulted.

The quantity of verse contained in the volume has been measured by the requisites laid down for admission to Harvard and our other principal colleges. We cannot help saying in this connection, that we think the quantity, both of verse and prose, altogether too large, and expressing our very decided opinion, the result of not a little experience, that a higher standard of scholarship would be reached if this quantity were diminished and a higher standard of *accuracy* demanded in regard to what remains. We are glad to find ourselves supported in this view by so eminent an authority as Dr. Taylor of Andover. We entirely agree with the following extract from his remarks at the late meeting of the American Institute of Instruction, except so far as regards an actual *increase* in the amount of Latin and Greek required for admission to college, which we should strongly deprecate:

"A special difficulty," says Dr. Taylor, "in the way of critical classical study in the elementary course is found in the amount which the requirements of the colleges make it necessary for the scholar to go over before his admission. In the time usually devoted to preparation for college, the amount is much greater than can possibly be studied with success and profit. It is not implied by this that the actual requirements are too great — I could wish they were increased, if the increase could be in the right direction — it is only meant that, in the time allotted, very few can study as it ought to be studied what is required. This I believe to be the experience of the best teachers. The feeling, therefore, becomes too prevalent with the pupil that there is so much to be *read*, while the true object of the reading is often lost sight of. Such is the importance which I attach to this subject, that if this were an association of classical teachers, I would move that the consideration of it be laid before the Faculties of the New-England Colleges, with the request that some modification be made in the requirements, either by diminishing the mere numerical amount, so that what is to be done may be and must be done with a much greater degree of thoroughness, or at least by making it an essential condition of admission, that, in addition to the present requirement, the candidate be obliged to sustain an examination of the most critical character on two orations in Cicero, and on one Book in the Anabasis, the examination to involve a thorough acquaintance with all forms, idioms, constructions, and all other topics properly belonging to the portions named. Either of these modifications will at once indicate to the pupil that he has much to attend to besides the mere reading of his authors and a general knowledge of syntax, and will give a new and much-needed incentive to thorough classical study in the preparatory schools."

We heartily commend the beautiful volume of Messrs. Hanson and Rolfe to the attention of our classical teachers.—[Ed.

The Sunday-school Teacher, a monthly magazine, devoted to the interests of Sunday schools, No. 1, Jan. 1866. Chicago: Adams, Blackmer, & Lyon.

A new magazine of 32 pages, of very neat appearance. The present number, besides reading matter, has a map of the Bible lands, and a page of music.

Questions on the Principles of Arithmetic, designed to indicate an outline of study, to incite among pupils a spirit of independent inquiry, and especially to facilitate a thorough system of reviews; adapted to any text-book, and to all grades of learners. By JAMES S. EATON, M.A. 12mo. pp. 47. Boston: Taggard & Thompson, 1866.

We heartily recommend this little work to the attention of teachers. The name of its lamented author is a sufficient guarantee of its quality, and no object can be so important in the teaching of mathematics as the substitution of a clear comprehension of principles for a dull, mechanical rote-method of "cipher-ing."

HOOKER'S CHILD'S BOOK OF COMMON THINGS. For the use of primary schools. New edition. New Haven: H. C. Peck, 1866.

THE CHILD'S BOOK OF NATURE. Part I., Plants. Part II., Animals. Part III., Air, Water, Heat, Light, &c. Small 4to. Harpers, N.Y., 1860–5.

FIRST BOOK IN CHEMISTRY. Small 4to. Harpers, N.Y., 1862.

FIRST BOOK IN PHYSIOLOGY. For the use of schools and families. Intended as introductory to the larger work. 12mo. pp. 191. Sheldon & Co., 1865.

SCIENCE FOR THE SCHOOL AND FAMILY. By WORTHINGTON HOOKER, Prof. of the Theory and Practice of Medicine in Yale College. Part I., Natural Philosophy, 12mo. pp. ix. and 346. Part II., Chemistry, 12mo. pp. vi. and 435. Part III., Mineralogy and Geology, 12mo. p. vi. and 360. Part IV., 12mo. pp. xi. and 382. Harpers, New York, 1860–65.

By the same author, HUMAN PHYSIOLOGY. Designed for colleges and the higher classes in schools, and for general reading. 12mo. pp. xi. and 454. Sheldon & Co., New York, 1865.

We believe this is the most complete series of school-books on natural and physical science published in this country. Dr. Hooker is doing brave service in a department which, of all others, most needs it. We have long been satisfied that the foundation of the instruction in our public schools should not be literature, but *science;* and science not merely abstract and theoretical, but practically applied to meet the common, every-day wants of the people. We have recently spoken somewhat at large on this subject, and find ourselves in singular agreement with Dr. Hooker.* We cannot do better here than give the following excellent statement of his plan and object from his own preface. With his views on the importance, and on the right method of teaching physical science, we most heartily agree.

"The natural sciences should be made prominent from the beginning to the end, [of school education,] not only because they are of practical value, but also because they are as useful in their way for mental discipline as the study of mathematics and of language. They can be taught to some little extent to the

* Dynamic and Mechanic Teaching: a lecture read before the American Institute of Instruction, and printed in its volume for 1865, and separately. Cambridge: Sever & Francis.

youngest pupils. There are facts about air, water, and the various objects that they see around them, which they can understand if they be presented in the right manner. And the busy inquiries which they make after the reasons of the facts, and their appreciation of them if stated simply and without technical terms, show the appropriateness of such teaching. Children are really very good philosophers in their way. They have great activity not only of their perceptive but of their reasoning faculties also, to which due range should be given in their education.

Beginning thus, not a year should pass during the whole course when the pupil shall not be engaged in studying some one of the physical sciences to some extent. This continued attention to such studies in a reasonable amount, so far from interfering with the due prosecution of the other studies deemed so essential, *will so promote the pupil's advance in them as to more than make up for the time that is taken from them.* It will do this not only by the genial influence which such studies exert upon the mind, but by the contributions which they make to the knowledge of language and mathematics; for language is largely built up from natural objects and from the acquisitions of science, and there is an abundance of interesting applications of portions of the mathematics in the facts which the physical sciences develop to us.

I have said that the teaching of the natural sciences in our colleges is generally a failure, and it always will be so as long as the present plan is continued. In order to have it successful there must be *the same gradation in teaching them that we have in teaching language and the mathematics.* The college student needs to be prepared for the lectures which he hears on natural philosophy, chemistry, etc., and for his study of those branches, by previous familiarity with the simpler portions of them acquired in the school-room.

There is another very important reason for the early introduction of the physical sciences into education. By far the larger portion of pupils in our schools stop short of the college, or even the academy and high school. That they should go forth into the world with no knowledge of the principles that lie at the basis of the arts in which so many of them are to engage is a shame and a wrong, if the communication of such knowledge be indeed practicable, as it undoubtedly is. Even those who are not to engage in these arts will be greatly benefited by this knowledge, because in addition to its constant practical applications in the management of life, it will contribute to their mental power, and, what is no small consideration, to their enjoyment; and it is in fact requisite to constitute them well-informed persons.

If the views which I have presented be correct, there should be a series of books on the natural sciences carefully adapted to the different periods of the course of study. Those intended for the young beginner should be exceedingly simple, and should not attempt to present anything like a full view of the subjects treated. They should deal largely with familiar facts or phenomena. The terminology of science and formal statements of principles, such as we often see in so-called compendiums, should have no place in them, but should be gradually introduced as the series advances, and should be made complete only in the concluding books."

We have never used Dr. Hooker's books in the school-room, and cannot, therefore, speak of their merits in detail, but we should judge, from a cursory examination, that he has an excellent faculty for bringing down the truths of science to the level of a child's comprehension, and of describing scientific facts in plain and familiar language, — a gift not so common as might at first appear. We feel very sure that public sentiment will demand continually, more and more, the introduction of this simple elementary teaching of the great laws of the physical world into our primary and grammar schools, that even the children who carry their education no farther, may learn the rudiments of what will be so useful in after life, and may have a curiosity aroused, which, long after school-days are over, they will contrive to find means in this country of cheap books, and the universal diffusion of information, to satisfy.—[Ed.

Maria Stuart ein Trauerspiel von Friedrich von Schiller: Maria Stuart, a Tragedy, by Frederick von Schiller, the original German-text, with an Introduction and Notes for translation into English. By Dr. Adolphus Bernays. Annotated German Text-books; German series, vol. 10, 12mo. pp. 175. Boston, De Vries, Ibarra & Co.

A very elegant edition of one of the best and most interesting of all pieces for the beginner in the German language, who has mastered its elementary difficulties. Spite of Mr. Froude, the fortunes and fate of Mary Stuart, as depicted by the great German dramatist, will continue to draw tears from many eyes, and advocates enough will still be found to side with all good Scotchmen in her defence.

No modern language presents such claims upon a teacher's attention as the German. Not only does the study of it, from its close relationship to our mother tongue, throw great light upon the English language, but, not to speak of its wealth in every other department, Germany possesses the best, almost the only educational literature extant. The acquisition of a tolerably good knowledge of the language is not, with all the modern helps at our command, a matter of such difficulty as, from the forbidding aspect of German types, would at first sight appear.

Messrs. De Vries, Ibarra & Co. are to be commended for their enterprise in bringing out these manuals in such a beautiful style.—[Ed.

Massachusetts Ecclesiastical Law. By Edward Buck, of the Suffolk Bar. 12mo., pp. viii. and 310. Boston: Gould & Lincoln.

"In this volume," says the author, in his preface, "I have attempted to collect and arrange, in convenient form, for reference, The Ecclesiastical Laws of Massachusetts, which lie scattered in profusion among the Statutes and Reports of the Commonwealth. . . . . Something has been done towards tracing our present ecclesiastical laws and usages to English sources. . . . . The reader will trace with satisfaction, the manner by which painful decisions of courts have led to a complete separation between Church and State."

No higher guarantee of the accuracy of the work can be had, than the fact that it was read in manuscript to and approved by the late Chief Justice Shaw. The work is handsomely printed, has a copious Index, and a list, filling nine pages, of cases cited. We should think it would be a valuable addition to a legal or a parish library.

LIST OF BOOKS RECEIVED.

Dr. Hooker's series on Physical Science, 11 vols. Noticed above.

Hanson and Rolfe. Handbook of Latin Poetry. Crosby & Ainsworth. Noticed above.

First Annual Catalogue of the Officers and Students, and Programme of the Course of Instruction of the School of the Mass. Institute of Technology, 1865–6. Noticed on page 42.

Schiller's Maria Stuart. DeVries, Ibarra & Co. Noticed above.

Charles Dickens' New Christmas Story. Dr. Marigold's Prescriptions. From A. Williams & Co.

Annual Catalogue of Amherst College.